IN THE SPECIFICATION:

Revise page 4, lines 3-19 to read as follows:

-- In a method for the pyrolysis and gasification of organic substances or mixtures of organic substances, this object is solved in accordance with the invention in that the pyrolysis is carried out in a moving-bed reactor or a rotary reactor, that a ~~solidifying~~ gasification agent, for example steam and/or oxygen, is optionally added to the pyrolysis gases and that they are led into a reaction zone in which the pyrolysis gases react with the ~~solidifying~~ gasification agent. The solid carbonaceous residue and, optionally, a portion of the pyrolysis gas are led to a fluidized ~~fluidised~~-bed combustion reactor on their own or together with the fluidized ~~fluidised~~-bed material and incinerated there. The fluidized ~~fluidised~~-bed material is heated up there. The combustion waste gases and the fluidized ~~fluidised~~-bed material are brought into contact with the reaction zone such that their thermal content can be used for the reaction of the pyrolysis gases with the solidifying agent. Fluidized ~~fluidised~~-bed material taken from the fluidized ~~fluidised~~-bed combustion reactor and consisting of ash, unburned coke and, optionally, additionally supplied refractory fluidized ~~fluidised~~-bed material, is returned to the pyrolysis reactor as a heat transfer medium, with the heat transfer to the application material for the carrying out of the pyrolysis taking place by contact with the fluidized ~~fluidised~~-bed material and, optionally, additionally through the hot wall of the fluidized ~~fluidised~~-bed combustion reactor.

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Revise page 5, lines 8-26 to read as follows:

- - Due to the fact that the pyrolysis is preferably carried out in a shaft oven, the supply of a fluidizing ~~fluidising~~ medium required for a pyrolysis fluidized ~~fluidised~~-bed can be omitted. In this way, the possibility exists to carry out the pyrolysis completely without supplying gas or, unlike a pyrolysis fluidized ~~fluidised~~-bed to which a minimum amount of gas must be supplied for ~~fluidising~~ fluidizing, to add any desired low amounts, for example of the product gas or of a ~~solidifying~~ gasification agent such as steam, oxygen or air. In this way, the possibility exists to add gas or a ~~solidifying~~ gasification agent to the pyrolysis reactor as a technical method adaptation to the respective application material. In the method of the invention, the pyrolysis is preferably carried out in the pyrolysis reactor in the absence of air and of gas. Another advantage of the carrying out of the pyrolysis in a separate process stage consists of the crushing effect which occurs during pyrolysis, allowing the use of coarser fragmentary material than normally used in fluidized ~~fluidised~~-bed reactors due to the smouldering and degassing. Alternatively, the possibility exists of interposing a crushing apparatus such as a roller crusher before the carrying-in apparatus for the solid carbonaceous pyrolysis residue and the fluidized ~~fluidised~~-bed material into the combustion fluidized ~~fluidised~~-bed, whereby the demands on the application material particle sizes can be further reduced. The energy to be used for the crushing of pyrolysis coke is here substantially lower than that for the crushing of, for example, biomass such as wood. - -;

Revise page 7, line 18 – page 8, line 4 to read as follows:

- -It can be seen from Fig. 1 that the application material 10 and the fluidized ~~fluidised~~-bed material 35 supplied as the heat transfer medium into the pyrolysis stage 1. The heat flow transported with the fluidized ~~fluidised~~-bed material 35 results from the temperature of the combustion fluidized ~~fluidised~~ bed, from the condition and the mass flow of the fluidized ~~fluidised~~-bed material 35 and of the application material flow 10 and from the desired pyrolysis temperature. Furthermore, a ~~solidifying~~ gasification agent 11 is supplied and a heat flow 34 transferred from the combustion fluidized ~~fluidised~~ bed 3. There exits from the pyrolysis stage 1 pyrolysis gas 13 which is guided into the reaction zone 2, pyrolysis gas 15 which is guided into the combustion reactor (to the combustion fluidized ~~fluidised~~ bed 3), a mixture of fluidized ~~fluidised~~ bed material and solid carbonaceous pyrolysis residue 14 and a heat loss flow 12. - -;

Revise page 8, lines 13-16 to read as follows:

- -The pyrolysis gas 13 supplied to the reaction zone 2 is transformed together with the ~~solidifying~~ gasification agent 21 into the product gas 23 with the aid of the supplied heat 36 in the presence of a catalyst. The product gas 23 and heat loss flow 22 finally exit the reaction zone 2.- -;

Revise page 10, lines 1-14 to read as follows:

- - Under the supply of the ~~solidifying~~ gasification agent of steam 21, the pyrolysis gases 13 are led into the reaction zone 2 consisting of a heat transmission member which is fitted with a catalyst to improve the tar cracking.

The energy required for the reaction of the pyrolysis gas 13 with the steam 21 is emitted to the heat transfer element 2 via the hot flue gas flow 36 from the combustion fluidized ~~fluidised~~ bed 3, with the reaction taking place at 850°C to 900 °C depending on the operation management of the combustion fluidized ~~fluidised~~ bed 3. Air or oxygen can also be mixed to the ~~solidifying~~ gasification agent of steam 21 for a further temperature increase by a partial incineration of the pyrolysis gas. The product gas 23 obtained has a calorific value of 9.87 $MJ/M^3(V_N)$ and is made up of the following gas components: 48.7 percent by volume H_2; 36.1 percent by volume CO, 0.1 percent by volume CH_4; 6.1 percent by volume CO_2; 9 percent by volume H_2O. The product gas 23 is subsequently dust separated and quenched in a preparation stage 5. The cold gas efficiency, that is the chemical energy of the application material with respect to the chemical energy content of the product gas, amounts to 80.8%. - -;

Page 11, change line 13 to read as follows:

– 11 ~~solidifying~~ gasification agent –; and

change line 19 to read as follows:

– 21 ~~solidifying~~ gasification agent –.